

REMARKS

Applicants respectfully request entry of the amendments and remarks submitted herein. Claims 1, 10, 17 and 41 have been amended; claims 2-5, 8, 11-14, 18-21, 24, 33, 34 and 44 have been canceled without prejudice to continued prosecution; and new claims 45-53 have been added. Support for new claims 45-53 can be found, for example, in original claim 44.

Claims 1, 10, 17, 41-43 and 45-53 are currently pending, and Applicants respectfully request reconsideration of the pending application.

The 35 U.S.C. § 112 Rejections

Claims 1, 10, 17, and 41-43 stand rejected under 35 U.S.C. §112, second paragraph, as the Examiner asserted that those claims are indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Specifically, the Examiner indicated that the claims do not include active or correlating steps.

Without acquiescing to the Examiner's rejection, Applicants have amended the independent claims to include the required active steps or correlating step. In view of these amendments, Applicants respectfully request that the rejection of the pending claims under 35 U.S.C. §112, second paragraph, be withdrawn.

Claim 1 stands rejected under 35 U.S.C. §112, first paragraph, as the Examiner asserted that claim 1 fails to comply with the enablement requirement. According to the Examiner, the specification is enabled for methods of screening for a therapeutic agent for cancer, but is not enabled for methods of screening for a preventative agent for cancer.

Without acquiescing to the Examiner's rejection, claim 1 has been amended to remove the reference to "preventive" agents. In view of this amendment, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §112, first paragraph, be withdrawn.

The 35 U.S.C. §102 Rejections

Claims 1, 10, 17, 41 and 43 stand rejected under 35 U.S.C. §102(b) as being anticipated by Wang et al. (*Arch. Biochem. Biophysics*, 390:9-18, 2001). According to the Examiner, the

results in Wang et al. suggest that Pim-1 inhibits apoptosis and, therefore, Wang et al. inherently discloses a method of screening for apoptosis-inducing agents using Pim-1 or a partial peptide thereof. This rejection is respectfully traversed with respect to the pending claims.

As indicated herein, the pending claims have been amended herein to refer to active steps and correlating steps. Claims 1, 10 and 17 are directed toward methods that include identifying compounds that inhibit the phosphorylation activity of Pim-1, while claim 41 is directed toward methods that include identifying a substance that enhances or inhibits the activity of Pim-1. On the other hand, the experiments described in Wang et al. are performed to measure the amount of Pim-1 activity during differentiation of U937 cells. See, for example, Figure 5. Wang et al. does not disclose screening compounds to identify those that inhibit the phosphorylation activity of Pim-1 for use as a therapeutic agent for cancer (claim 1), as an apoptosis-inducing agent (claim 10), or as an anticancer agent potentiator (claim 17). That is, Wang et al. discloses that there is a correlation between PMA and U937 cell differentiation, but does not disclose, or even, suggest, a correlation between PMA and the phosphorylation activity of Pim-1.

In addition, original claim 43 as well as new claims 46, 48, and 50 recite using “an antibody that recognizes the phosphorylated form of the serine/threonine kinase Pim-1 phosphorylation substrate”, while Wang detects phosphorylation of a substrate using radioactively-labeled [ $\gamma$ -<sup>32</sup>P]ATP (see, for example, “*In vitro kinase assay*” in the left-hand column of page 11). Thus, Wang et al. does not disclose using an antibody as required by claims 43, 46, 48 and 50. Further, new claims 51-53, which depend, either directly or indirectly, from claims 1, 10 or 17, further distinguish the present invention from the disclosure of Wang et al. Specifically, new claims 51-53 are directed toward methods of screening for a compound that is specifically effective against pancreatic cancer.

In view of the amendments and remarks herein, Applicants respectfully request that the rejection of the pending claims under 35 U.S.C. §102(b), be withdrawn.

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Rejections under 35 U.S.C. §103

Claim 42 stands rejected under 35 U.S.C. §103 as being unpatentable over Wang et al. in view of Whitmarsh et al. (*Meth. Enzym.*, 332: 319-326, 2001). This rejection is respectfully traversed.

Claim 42 depends from claim 41, which is novel over Wang et al. for the reasons set forth above. Since the combination of Wang et al. and Whitmarsh et al. fails to teach all of the elements of pending claim 42, the combination of Wang et al. and Whitmarsh et al does not make the subject matter of claim 42 obvious. Therefore, Applicants respectfully request that the rejection of claim 42 under 35 U.S.C. §103 be withdrawn.

CONCLUSION

Applicants respectfully request allowance of claims 1, 10, 17, 41-43 and 45-53. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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/M. Angela Parsons/

Date: \_\_\_\_\_

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